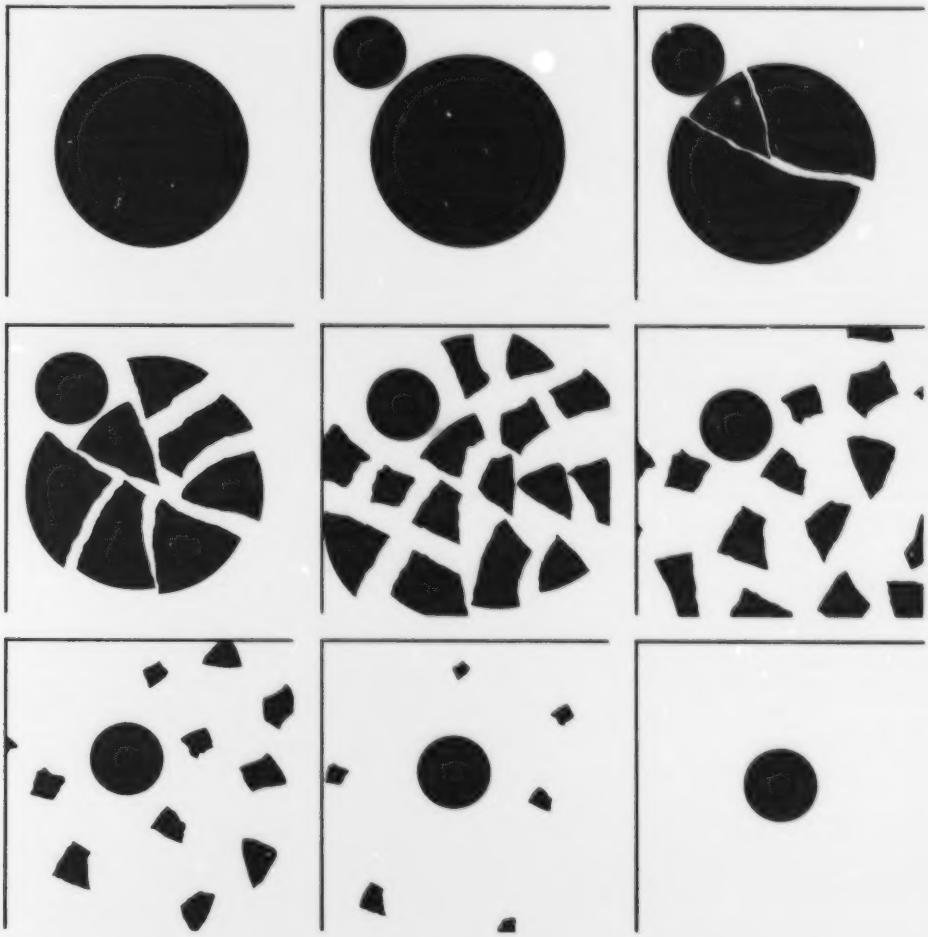
CANCER CONTROL AGENCY
OF BRITISH COLUMBIA



ANNUAL REPORT
1985-1986

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The cover illustration graphically shows a "killer" cell in action. The killer cell (small circle) approaches a tumour cell. Upon contact, the tumour is recognized as foreign, shortly followed by disintegration of the tumour cell membrane. Biological agents such as interferon and interleukins stimulate a variety of anti-tumour killer cells. These agents are under active investigation in the laboratories of the B.C. Cancer Research Centre and in the clinic of the Cancer Control Agency of B.C.

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Publications:
For 1985-86, all research papers by clinicians at the CCABC have been included in the Master Publications List in the Annual Report of the B.C. Cancer Research Centre.

Administration

Dr. D.A. Boyes
Director, CCABC
Mr. R.J. Smith
Deputy Director, CCABC
Dr. R.E. Beck,
Director, Outreach Program
Mr. D.C. Richardson
Assistant Deputy Director
Mrs. L.B. Jamieson
Director, Nursing
Dr. P. Coy,
Director,
Victoria Cancer Clinic
Mr. W.H. Crysler
Assistant Administrator
Victoria Cancer Clinic

Board of Trustees' Committees

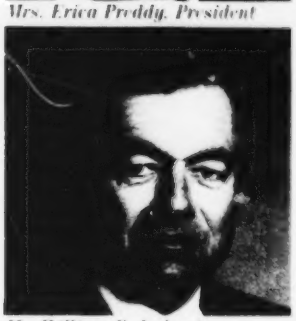
Executive Committee
Mrs. E. Preddy
Finance Committee
Mr. L. Jolivet
Joint Conference Committee
Mr. W.E. Ireland
Lay Advisory Committee
Mr. W.D. Black
Nominating Committee
Mrs. E. Preddy
Professional Advisory Committee
Dr. M.D. Morrison
Quality of Care Committee
Mrs. E. Puder

Ministerial Committees

Joint Agency/Ministry Cancer Outreach Program Committee
Dr. A.R. Hutchinson
Project Building Committee, AMEC
Dr. R.N. Hicks
Project Building Committee, VCC
Gen. B.A. Oxholm

CCABC Board of Trustees

Mrs. Erica Preddy, President



Mr. William E. Ireland, Vice President

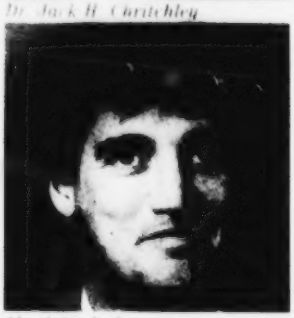
Mr. W. David Black

Dr. Jack B. Critchley

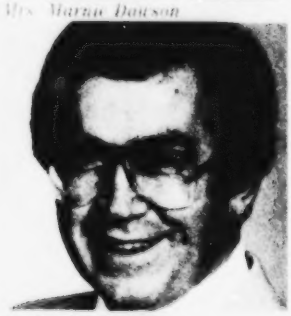
Mrs. Marnie Dawson

Dr. A. Robin Hutchinson

Mr. Lawrence Joliffe



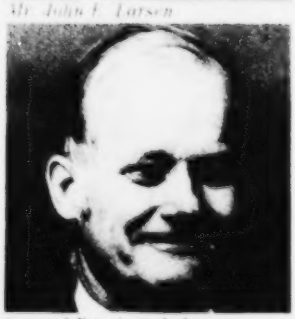
Mr. John F. Larsen



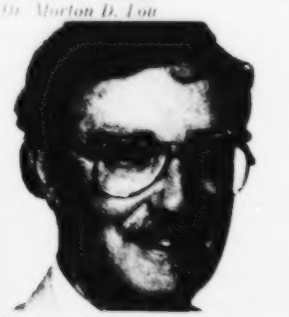
Dr. Morton D. Lon

Mr. Victor E. MacLean

Dr. Murray D. Morrison



General Ben A. Oxholm



Mr. Alan N. Patterson

Mr. Barrie M. Philp

Mrs. Eileen Puder

Mr. Thomas G. Rust

Mrs. Jane van Roggen

PRESIDENT'S REPORT

Mr. Minister, I am pleased to be able to report to you on behalf of the Board of Trustees of the Cancer Control Agency that our organization continues to fulfill its mandate of providing cancer services to the population of British Columbia in a manner that is internationally recognized as outstanding.

Our staff have worked diligently to make effective the new A. Maxwell Evans Clinic in Vancouver and to make the construction of the new facilities in Victoria a reality. The Board too has had a busy year addressing issues of reorganization and amalgamation of functions within the operation, of reviewing and agreeing on future directions and of ensuring the financial viability of the provincial operations.

In the matter of financial operations, you will note a deficit for the year. This was a pre-arranged result intended to use surpluses generated in prior years when operating volumes did not expand in concert with the funding base provided through the Ministry of Health.

I am also pleased to report that the basis for a new relationship with the B.C. Cancer Foundation established a few years ago continues to strengthen in the best interests of both organizations. In addition, a new alliance with the Canadian Cancer Society (B.C. & Yukon Division) is beginning to formulate and thereby strengthen the voice for cancer from the perspective of all three organizations concerned with this disease in the province. The new alliance with the Society recognizes the important role they play in public education in this province.

In September 1985, Dr. D.A. Boyes, Director of the Agency, tendered his resignation with effect from March 1987. Since that time an ad hoc committee to find a new director has reviewed the interests and requirements of the constituents with whom the Agency interacts and has determined the Agency's requirements. We are now in the recruitment process.

We look with pride at the increasing provincial, national and international recognition the Agency attracts in the fields of medicine, science and administration. We are proud of our accomplishments and pleased to share them with you. In this past year the Deputy Director of the Agency, Mr. R.J. Smith, has served as Chairman of the B.C. Health Association.

On behalf of the Board of Trustees I want to extend appreciation to the Ministry of Health for its continued support of the Cancer Control Agency. The staff of the Ministry has been most cooperative in assisting the Agency in administrative and financial matters.

My personal appreciation is extended to the members of the Board of Trustees and to the chairmen and members of the standing committees and other special committees for the important contributions they have made. In addition, I want to offer my gratitude to the administrative staff of the Agency for their exceptional support. Finally, I want to thank the members of the staff on behalf of the Board and the patients for their continued high quality of patient care.

I have appreciated the opportunity to serve as President of the Cancer Control Agency in this past year.

Mrs. Erica Preddy, R.N.
President, Board of Trustees
CCABC

Director's Report

The past year, 1985-86, was a period of consolidation of the activities of the A. Maxwell Evans Clinic. It takes a while to make any new structure function to its potential. I think that we have achieved this in the last year. It is of interest that the first signs of crowding are now appearing but fortunately there is no real need for any structural change apparent at this time. Undoubtedly it will come to that as it always has.

Of paramount concern during the year was the issue of administrative/medical/nursing relations. This led to a study by Ernst & Whinney, Management Consultants, and a subsequent reorganization of relationships in these groups.

A milestone of the year was the commencement of the new clinic construction in Victoria. We hope that we will be opening that building in 1987. This will be a boon to the patients on Vancouver Island and to the Victoria staff as they will have upgraded equipment comparable to that in Vancouver.

There has been a trend toward our managing more acutely ill patients whom in the past we used to refer back to general hospitals. This has made increasing demands on our nursing and support staff but we have met the challenges well. This trend is expected to continue.

Our results of treatment continue to improve steadily. This reflects well on our staff and should be a source of pride to us all. At Education Day, held every six months, these results are reported.

The success of our researchers in attracting grant funding is a good indication of the respect they have earned in their fields. The Research Centre is flourishing as is the clinical work of the Agency.

Once more we have been magnificently supported by the Order of the Eastern Star and Mrs. Arlene Temple's report is included in this Annual Report. The Women's Auxiliary continues to sew, serve coffee in the patient waiting areas and, all in all, provide needed support to our patients. The IODE has allowed us to furnish the sundeck for the patients and to provide some refreshments for patients and their families or friends in the lobby. We are grateful to them all.

I would like to thank the Board of Trustees and its President, Mrs. Erica Preddy, for the support given us over the past year.

D.A. Boyes,
MD, CM, DMRT, FRCS(C),
FRCP(C), FRCOG
Director

IODE REPORT

The IODE coffee bar, which is located in the main entrance reception area of the Clinic, opened in October, 1985. Coffee, tea, muffins and cookies are served to outpatients and visitors at no charge. $3,300 was donated from our Jessie R. Burke Fund towards the cost of art work for patients' rooms and treatment and waiting areas. The Quiet Room on the sixth floor was furnished by IODE members' donations as a tribute to Steve Fonyo's "Journey for Lives" run across Canada. Some patio furniture has been purchased for the roof garden. We hope that patients and their friends will enjoy this attractive area.

I wish to thank the Professional Staff and the Trustees of the CCABC for inviting me to attend their annual dinner meetings and the Women's Auxiliary for their invitation to me and my convenor to their annual meeting and coffee party and also for Mrs. Easton's good wishes and gift on behalf of the Women's Auxiliary to IODE volunteers on our return to the A. Maxwell Evans Clinic.

Mrs. J.H. Stark, Chairman
Jessie R. Burke (Cancer and Research) Fund

ORDER OF THE EASTERN STAR

In May of 1985 the Grand Chapter of British Columbia and the Yukon approved the expenditure of $75,400 for the following projects:

Colour bedside televisions	$ 5,000
Erma Boyce Library	$ 2,500
Diagnostic Imaging	$ 1,500
Isolation ward – video cassette recorders	$ 1,400
Polaroid Camera – for the Electron Microscope	$ 1,500
Resuscitation equipment	$ 1,500
Shane Fellowship – Dr. P. Dolman	$18,000
Terry Fox Laboratory	$39,000
O.E.S. Dressing Station – reheater	$ 5,000
TOTAL	$75,400

Funds to be retained until requested for the Victoria Cancer Clinic $25,000

The contribution of dressings free of charge to cancer patients is a service which gives practical expression to our professon of a "service to humanity".

There are 61 cancer dressing stations throughout British Columbia and the Yukon. During the year 1,141 members put in approximately 40,595 hours and made 256,295 dressings and other items. From the Vancouver station 163,965 standard and special dressings were given out to local patients and to the hospital units of the Clinic.

We placed flowers throughout the clinic at Christmas and Easter time. We have provided afghans and stoma bibs. Books, games, stationery and toiletries were given for the children attending the Clinic for treatment and for those in the cancer ward of the Children's Hospital.

We are grateful for the advice and assistance extended to us by Dr. David Boyes and the staff of the Cancer Control Agency.

Mrs. A. Temple
Director of Cancer Activities in B.C. and the Yukon
Order of the Eastern Star

Women's Auxiliary To The BCCF, CCS (BC & Yukon Division) And AMEC

This year marks the Auxiliary's 40th year of service to the B.C. Cancer Foundation, the Canadian Cancer Society (B.C. & Yukon Division) and the A. Maxwell Evans Clinic.

Our members provide a variety of services: Escorts, Aides in the treatment and follow-up Clinics, Patient Aides in the Radiotherapy area and Patients' Hospital Lounge and our volunteers assist at TRIUMF when it is operating. The candy cart goes around twice weekly and current magazines are distributed throughout the Clinic. Our sewing group makes the headscarves and tracheotomy bibs for patients in need of them. We are still finding new areas where we can be of service and will be placing volunteers when possible.

Last November saw the publication of the first Newsletter of the Women's Auxiliary. It is our hope to keep all the Auxiliary members better informed as to the events and workings of our organization by publishing the Newsletter three times a year.

The decorating of the Clinic for Christmas is always a special event. Last Christmas the Auxiliary distributed over 100 Christmas baskets containing home baking, fruit and candy along with a knitted gift, to the hospital patients and the patients staying at the Canadian Cancer Society Lodge. In addition food vouchers were provided for some patients at the request of the Social Work Department.

As the representative of the Women's Auxiliary, it is my privilege to attend the meetings of the Board of Directors of the B.C. Cancer Foundation and Board of Trustees of the Cancer Control Agency of B.C. I am grateful for this opportunity as it gives me a greater understanding of the problems and goals of these organizations.

On behalf of the Women's Auxiliary I would like to thank the Foundation and the CCABC for their continued interest and support.

Mrs. E. Easton
President, W.A.

Committees Of The Cancer Control Agency And Their Chairmen

Medical Administrative Committees

Acquired Immune Deficiency Syndrome Committee
Dr. J.H. Goldie

Agency Management Committee
Dr. D.A. Boyes

AMEC Medical/Dental Staff Association
Dr. J.M. Connors

Biohazard Committee
Dr. G.H. Anderson

Bone Marrow Transplant Committee
Dr. G.L. Phillips

Cancer Prevention Advisory Committee
Dr. P.R. Band

Clinical Investigation Committee
Dr. H.K.B. Silver

Infection Control Committee
Dr. N. Murray

Medical Manpower Committee
Dr. D.A. Boyes

Medical Records Committee
Dr. C.M.L. Coppin

Nutrition Committee
Dr. W.C. MacDonald

Occupational Health & Safety Committee
Mrs. L. Argyle

OR Committee
Dr. R.E. Robins

Patient Care Committee
Dr. J.H. Goldie

Pharmacy & Therapeutics Committee
Dr. I.H. Plenderleith

Professional Advisory Credentials Committee
Dr. G.H. Anderson

Radiation Safety Committee
Mr. D.C. Richardson

Research Management Committee
Dr. D.A. Boyes

Staff Communications Committee
Mrs. R. Bruce

Symptom Management Committee
Dr. I.H. Plenderleith

VCC Management Committee
Dr. P. Coy

Tumour Group Committees

Bone & Soft Tissue Group
Dr. K.S. Morton

Breast Tumour Group
Dr. V.E. Basco

Central Nervous Tumour Group
Dr. C.M. Ludgate

Gastro-Intestinal Tumour Group
Dr. W.C. MacDonald

Genito-Urinary Tumour Group
Dr. L.D. Sullivan

Gynecology Tumour Group
Dr. J.L. Benedet

Head & Neck Tumour Group
Dr. A.D. Flores

Lung Tumour Group
Drs. W. Nelems & P. Coy

Lymphoma & Leukemia Tumour Group
Dr. P. Klimo

Melanoma Tumour Group
Dr. H.K.B. Silver

Ocular & Orbital Tumour Group
Dr. J. Rootman

Pediatric Tumour Group
Dr. C.J.H. Fryer

Skin Tumour Group
Dr. D.I. McLean

Five Year Financial Highlights

	1985/86	1984/85	1983/84	1982/83	1981/82
	$ 000	$ 000	$ 000	$ 000	$ 000
EXPENDITURES					
The increase in total expenditures over the past five years shows the growing role of the Agency in assuming financial responsibility for cancer care in the province.					
Operating Fund	$44,982	$37,674	$32,400	$30,693	$26,052
Investigative Grants Fund	2,206	2,222	1,799	1,462	1,149
Plant Fund	2,705	7,913	14,480	11,288	3,821
Total Expenditures	$49,893	$47,809	$48,679	$43,443	$31,022
NET OPERATING RESULTS					
The net operating results for the same period demonstrate the close liaison the Agency has with the principal funding authorities within the British Columbia Ministry of Health. The deficit for the current year was incurred as planned to utilize the accumulated surplus from the previous years.					
Excess (Deficiency) of Operating Fund revenue over expenditure for the year	$(1,292)	$ 1,304	$ 1,013	$ 507	$ (3)
% of Operating Fund expenditure	(2.9%)	3.5%	3.1%	1.7%	(0.0%)

Financial Statements

Condensed Statements of Revenue, Expenditure and Surplus

For the year ended March 31, 1986 with comparative figures for the year ended March 31, 1985

		1986	1985
		$ 000	$ 000
Operating Fund			
Revenue	Government grants	$40,138	$35,874
	Recoveries for services	2,385	2,349
	Investment and other income	1,167	755
		43,690	38,978
Expenditure	Salaries, wages and benefits	30,874	26,745
	Patient care	9,685	7,034
	Plant and support services	4,423	3,895
		44,982	37,674
Current year's excess (deficiency) of revenue over expenditure		(1,292)	1,304
Surplus, beginning of year		2,663	1,568
		1,371	2,872
Appropriation to Plant Fund		(190)	(209)
Returned Plant Fund Appropriation		939	–
Surplus, end of year		$ 2,120	$ 2,663
Plant Fund			
Surplus, beginning of year		$41,071	$32,873
Add:	Capital grants received	3,658	10,865
	Appropriation from Operating Fund	190	209
		44,919	43,947
Deduct:	Depreciation	(2,754)	(2,876)
	Appropriation returned to Operating Fund	(939)	–
Surplus, end of year		$41,226	$41,071

The information shown in the condensed financial statements is extracted from the Agency's full financial statements for the year ended March 31, 1986 on which the Agency's auditors, Clarkson Gordon, have reported. Copies of their report and of the full financial statements are available on request.

Financial Statements

Condensed Balance Sheets

as at March 31, 1986 with comparative figures as at March 31, 1985

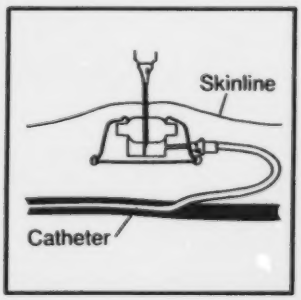
		1986	1985
		$ 000	$ 000
Operating Fund			
Assets	Cash	$ 4,963	$ 3,643
	Amounts receivable	2,133	2,407
	Inventory of supplies	763	670
	Prepaid expenses	233	235
	Due from Plant Fund	–	190
		$ 8,092	$ 7,145
Liabilities and Surplus			
	Accounts payable and accruals	$ 5,972	$ 4,482
	Surplus	2,120	2,663
		$ 8,092	$ 7,145
Plant Fund			
Assets	Buildings and equipment	$39,868	$40,302
	Construction in progress	718	555
	Deposit on equipment	680	469
		$41,266	$41,326
Liabilities and Surplus			
	Holdbacks payable	$ 40	$ 65
	Due to Operating Fund	–	190
	Surplus	41,226	41,071
		$41,266	$41,326

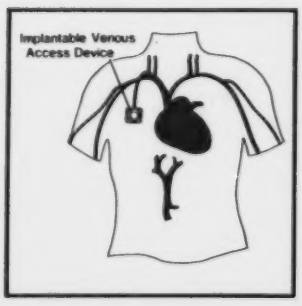
The information shown in the condensed financial statements is extracted from the Agency's full financial statements for the year ended March 31, 1986 on which the Agency's auditors, Clarkson Gordon, have reported. Copies of their report and of the full financial statements are available on request.

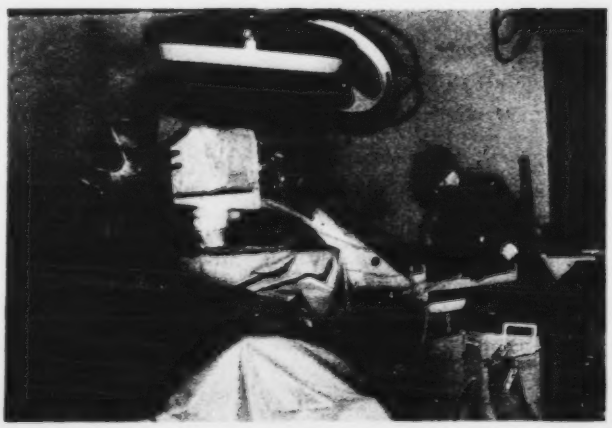
CCABC Patient Statistics

	April 85 – March 86			April 84 – March 85		
	Vancouver Clinic	Victoria Clinic	Outreach Clinic	Vancouver Clinic	Victoria Clinic	Outreach Clinic
New Patient examinations (including second sites)	5,321	1,259	805	5,243	1,122	777
Treatments: Radiation						
Patients started all modalities		5,158	330	–	4,968	1,040
Fields treated						
X-rays and cobalt	121,370	32,544	–	116,548	26,695	–
Radium and caesium	369	39	–	266	32	–
Other	1	–	–	7	–	–
Total	121,840	32,583	–	116,821	26,727	–
Patient visits	54,813	14,028	–	50,797	12,947	
Treatments: Chemotherapy						
Patient started	6,038	N/A	–	5,694	N/A	–
Patient visits	9,797	828	–	8,793	795	–
Other Ambulatory Care Visits	33,448	8,661	5,701	32,436	8,779	6,167

N/A not available







During the insertion of an implantable venous access device (Port-A-Cath), Dr. G. McGregor takes a fluoroscopy X-ray image to confirm right atrial catheter placement. This implanted system has eliminated the need for peripheral venipuncture in the delivery of chemotherapy drugs, blood and blood products, intravenous fluids and medications. The device contributes significantly to patient comfort. In British Columbia the physician and nursing expertise about this device originated at the Cancer Control Agency.

Number Of Admissions, Vancouver Cancer Clinic & Victoria Cancer Clinic, By Site

January – December 1985

Vancouver Cancer Clinic totals are for referred sites

Site	Total Number of Admissions	
	Vancouver Cancer Clinic	Victoria Cancer Clinic
Lip	29	5
Mouth	103	16
Salivary Glands	14	2
Pharynx	109	16
Esophagus	67	11
Stomach	77	19
Small Intestine	10	2
Colon	228	65
Rectum, Rectosigmoid and Anus	224	55
Liver	23	4
Gallbladder and Biliary Tract	16	3
Pancreas	70	11
Retroperitoneum	7	1
Nasal Cavities	14	1
Larynx	81	22
Trachea, Bronchus and Lung	826	192
Pleura	0	0
Thymus, Heart, Mediastinum	10	1
Bones, Joints, Articular Cartilage, Connective Subcutaneous and Soft Tissue	77	6
Skin	429	96
Breast	1,054	270
Cervix Uteri	117	15
Placenta (Hydatiform Mole)	6	0

Continued next column

Site	Total Number of Admissions	
	Vancouver Cancer Clinic	Victoria Cancer Clinic
Corpus Uteri (Endometrium, Myometrium)	267	50
Ovary, Fallopian Tube, Broad Ligament	158	36
Other and Unspecified Female Genital Organs	33	5
Prostate	481	101
Testicle	64	8
Penis and Other Male Genital Organs	1	1
Urinary Bladder	114	31
Kidney, Ureter, Urethra	63	14
Eye and Lacrimal Gland	2	0
Brain	122	33
Other and Unspecified Parts of the Nervous System	11	1
Thyroid Gland	29	9
Other Endocrine Glands	14	1
Malignant Melanoma	280	45
Non-Hodgkin's Disease	230	45
Hodgkin's Disease	69	11
Leukemia	102	22
Other Malignant and Borderline Diseases of the Reticuloendothelial and Hematopoietic Systems	28	7
Multiple Myeloma	57	17
Mesotheliomas	12	8
Primary Unknown	96	37
Non Cancer	166	27
Miscellaneous	8	0
TOTAL	5,998	1,322
Youth Cancers (these cases were included in the above breakdown)	**128**	**18**

AMEC – VANCOUVER CANCER CLINIC REFERRED TOP 10 SITES

BY SEX AND AGE GROUP

January – December 1985	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	
	0-16		17-24		25-34		35-44		45-54		55-64		65-74		75-84		85-+		TOTAL		TOTAL
Breast	–	–	1	–	43	–	157	1	212	1	277	1	245	2	95	1	18	–	1048	6	1054
Trachea, Bronchus, Lung	–	–	–	1	1	2	17	17	37	61	96	166	86	220	34	79	2	7	273	554	826
Prostrate	–	–	–	–	–	1	–	–	–	12	–	120	–	230	–	109	–	9	–	481	481
Skin	–	1	–	–	6	9	10	17	13	23	44	53	53	75	35	51	24	15	185	244	429
Malignant Melanoma	–	2	8	1	44	25	40	22	19	19	26	30	9	20	8	3	3	1	157	123	280
Corpus Uteri	–	–	–	–	–	–	14	–	34	–	92	–	106	–	18	–	3	–	267	–	267
Non-Hodgkin's Disease	3	1	–	–	7	8	6	19	10	24	20	35	33	29	17	14	–	4	96	134	230
Colon	–	–	1	–	5	1	7	3	14	11	35	34	40	38	17	20	–	2	119	109	228
Rectum, Anus & Rectosigmoid	–	–	–	–	–	1	7	10	14	15	31	36	32	42	19	10	4	3	107	117	224
Non Cancer	7	5	6	3	8	5	18	7	17	14	12	15	15	14	8	8	4	–	95	71	166

VICTORIA CANCER CLINIC REFERRED TOP 10 SITES

BY SEX AND AGE GROUP

January – December 1985	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	
	0-16		17-24		25-34		35-44		45-54		55-64		65-74		75-84		85-+		TOTAL		TOTAL
Breast	–	–	–	–	11	–	27	–	53	–	90	2	57	1	26	1	2	–	226	4	270
Trachea, Bronchus, Lung	–	–	–	–	1	–	2	–	10	9	18	47	13	59	5	26	1	1	50	142	192
Prostrate	–	–	–	–	–	–	–	–	–	4	–	21	–	53	–	22	–	1	–	101	101
Skin	–	–	–	1	1	–	1	1	1	6	1	18	7	31	8	11	2	7	21	75	96
Colon	–	–	–	–	–	1	1	1	8	2	12	7	12	16	5	–	–	–	38	27	65
Rectum, Anus & Rectosigmoid	–	–	–	–	–	–	–	–	7	4	4	5	11	13	5	5	–	1	27	28	55
Corpus Uteri	–	–	–	–	–	–	–	–	4	–	11	–	26	–	9	–	–	–	50	–	50
Malignant Melanoma	–	–	1	1	5	3	5	4	1	–	4	9	4	6	1	–	1	–	22	23	45
Non-Hodgkin's Disease	–	–	–	–	–	–	2	4	2	2	4	6	6	11	4	4	–	–	18	27	45
Primary Unknown	–	–	–	–	–	1	1	–	1	–	4	5	8	7	6	3	–	1	20	17	37

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B.C. CANCER STATISTICS 1984

This section presents incidence and mortality data for cancer in British Columbia in 1984 and data on trends in incidence and mortality of cancer in the province over time.

The first figure outlines the relative frequency of new cancer cases and cancer deaths occurring the the province according to anatomic site and sex. Childhood cancers are presented separately.

Age, sex and site-specific tables of the number of new primary invasive cancers diagnosed among residents of the province in 1984 are included next, as well as the crude age, sex and site-specific incidence rates which are calculated by dividing the number of cases by the number of persons in that age and sex group in the B.C. population. Comparable tables for cancer deaths among B.C. residents in 1984 and corresponding crude mortality rates are also presented.

Following the 1984 data, the age-standardized incidence and mortality rates for cancer by sex and anatomic site for the last four years are presented. These rates have been adjusted to compensate for artifactual changes in the rates due to changes in the age distribution of the population-at-risk over time. All rates have been standardized to the 1971 Canadian population.

Long-term trends in cancer incidence and mortality in British Columbia, again age-standardized to eliminate the effect of changes in the age distribution of the population, are presented last. There has been no significant increase in the age-standardized incidence rate of cancer in British Columbia during the period shown in the graph (1971-1984).

Incidence data has been compiled by the Cancer Registry, part of the computerized on-line patient information system at the Agency. Duplicates of all pathology reports mentioning malignancies are submitted routinely to the Registry from all regional and hospital pathology services in the province. Other sources account for an additional 10% of notifications. Ascertainment for most sites is considered to be virtually complete. Mortality data are derived from provincial vital statistics records supplied to the Registry.

All malignant neoplasms classified in the 'International Classification of Diseases for Oncology'[1] are recorded by the Registry. Deaths from cancer included here have been classified under rubrics 140 to 208 of the 'International Classification of Diseases, Ninth Revision'[2]. In cases where the primary site of a tumour is not known, the secondary site is recorded. For incident cases, the unit of reporting is the neoplasm rather than the person, so that two or more tumours may be recorded for a single individual. Furthermore, multiple superficial skin cancers are recorded only once per patient for each histological type and may not be comparable with data from other areas.

The site classifications for this report were grouped so that incidence and mortality data are comparable.

M. McBride, MSc
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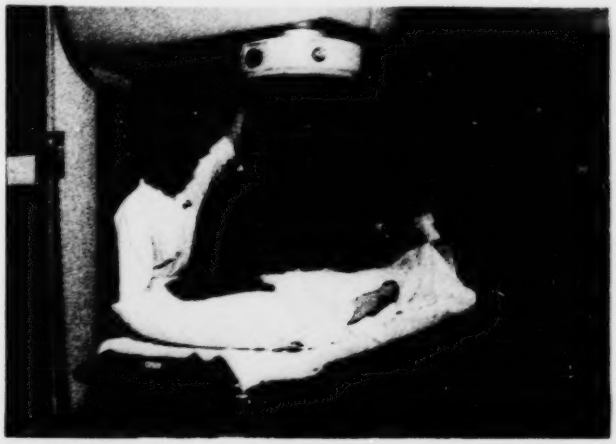
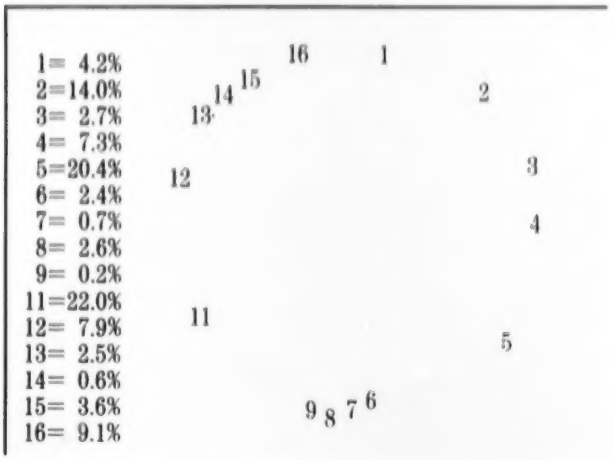
1. World Health Organization. ICD-0: International Classification of Diseases for Oncology. First Edition. Geneva, Switzerland, 1976.
2. World Health Organization. Manual of the International Statistical Classification of Disease, Injuries, and Causes of Death. Based on the Recommendations of the Ninth Revision Conference, 1975 and Adopted by the Twenty-ninth World Health Assembly. Geneva, Switzerland, 1977.



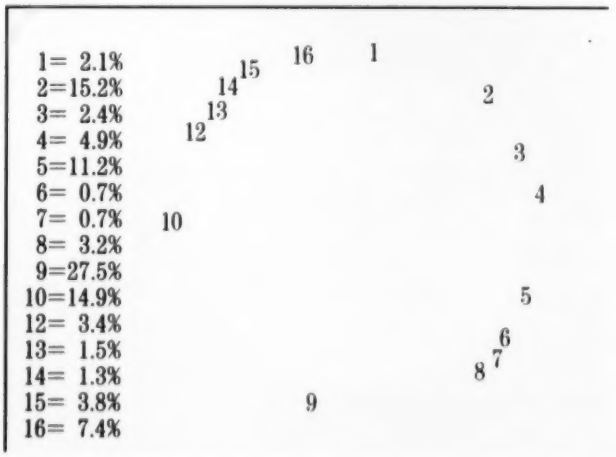
The Linear Accelerator produces high energy x-rays used in the treatment of many cancers. Marilyn Davis, ACT, is preparing a patient for radiation treatment on the Therapi 4 Linear Accelerator.

RELATIVE FREQUENCY OF NEW CASES OF CANCER DIAGNOSED IN 1984

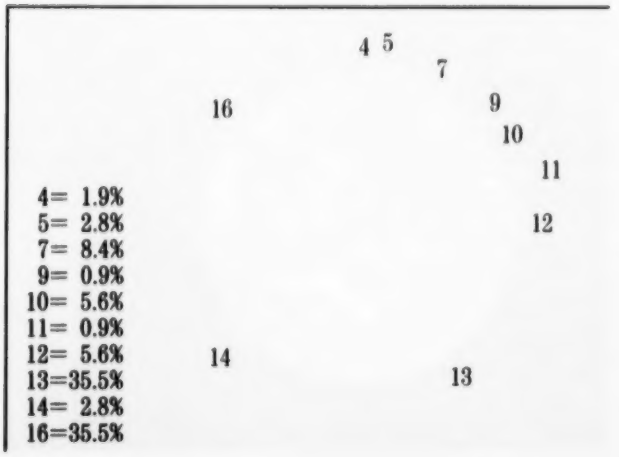
MALES 15 AND OVER



FEMALES 15 AND OVER



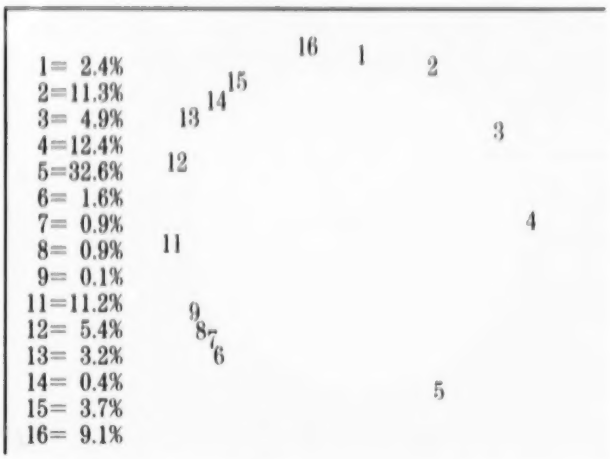
CHILDREN UNDER 15

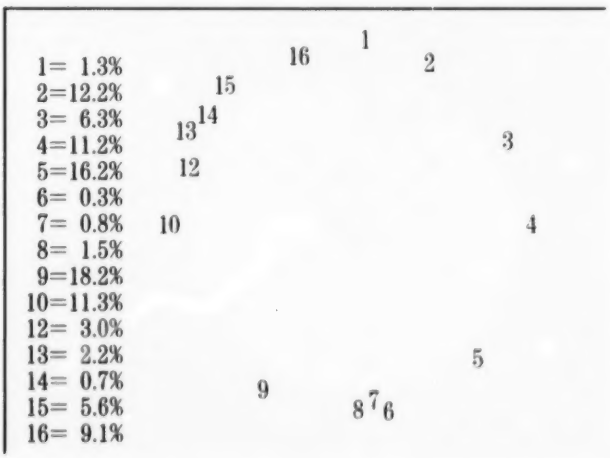


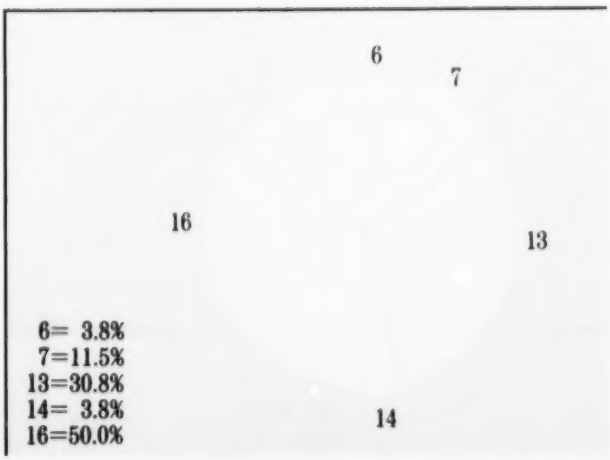
SITE GROUPS

1	Buccal Cavity and Pharynx
2	Colon and Rectum
3	Pancreas
4	Other Digestive
5	Lung
6	Other Respiratory
7	Bone & Soft Tissue
8	Melanoma
9	Breast
10	Genital Organs (Female)
11	Genital Organs (Male)
12	Urinary Organs
13	Eye, Nervous System
14	Endocrine System
15	Other & Unspecified
16	Lymphatic & Hemopoietic

Relative Frequency of Cancer Deaths In 1984

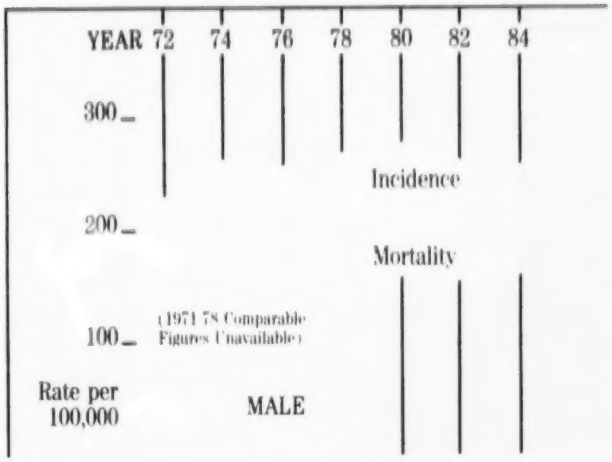


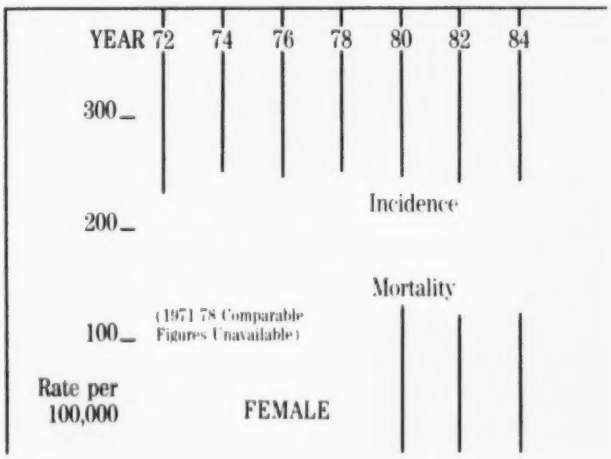




Age-Standardized Incidence And Mortality Rates for All Cancers Diagnosed In B.C., 1971 - 1984

Invasive cases only; excludes basal squamous cell cancers of the skin





B.C. Cancer Statistics 1984

New Cancer Primaries By Sex And Age Group, 1984

	0 - 34		35 - 44		45 - 54		55 - 64		65 - 74		75 - 84		85 - UP		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Lip	2	0	0	0	8	1	14	2	15	4	15	1	1	0	55	8
Tongue	2	1	4	3	9	6	11	4	7	4	5	5	0	3	38	26
Mouth	1	1	4	1	17	5	21	5	11	14	6	10	1	2	61	38
Pharynx	4	0	3	0	9	5	26	13	16	11	12	2	3	0	73	31
Esophagus	1	0	1	0	8	3	23	5	24	14	18	6	3	5	78	33
Stomach	2	0	1	3	16	4	39	12	80	36	51	31	11	16	200	102
Small Intestine	0	0	0	1	5	0	7	4	6	2	0	2	0	2	18	11
Colon	3	7	19	14	30	33	85	94	146	153	131	137	30	71	444	509
Rectum	2	0	6	6	33	28	76	73	113	71	69	48	16	21	315	247
Liver	1	0	2	3	5	2	12	7	12	7	10	8	5	2	47	29
Gallbladder	1	0	0	0	1	3	7	7	9	11	8	15	3	7	29	43
Pancreas	0	0	3	2	12	5	37	18	48	41	35	30	9	24	144	120
Larynx	0	0	6	2	15	2	29	8	18	6	15	3	6	0	89	21
Trachea, Bronchus, Lung	5	2	19	16	97	59	274	182	414	173	254	102	48	23	1111	557
Bone, Connective Tissue	9	11	4	2	3	3	5	11	10	7	9	4	1	1	41	39
Melanoma-Skin	31	43	23	30	20	20	33	39	22	19	10	8	2	0	141	159
Other Skin	66	75	138	133	259	208	519	364	693	477	454	340	145	172	2274	1769
Breast	0	35	1	140	1	201	2	342	2	346	3	227	1	81	10	1372
Cervix	0	28	0	24	0	19	0	17	0	11	0	11	0	4	0	114
Uterus	0	2	0	21	0	50	0	94	0	102	0	31	0	10	0	310
Ovary	0	16	0	22	0	46	0	83	0	63	0	44	0	13	0	287
Other Female Genital Organs	0	3	0	1	0	4	0	3	0	4	0	16	0	6	0	37
Prostate	0	0	1	0	17	0	170	0	432	0	370	0	119	0	1109	0
Testis	38	0	18	0	10	0	3	0	1	0	0	0	0	0	70	0
Bladder	5	2	9	0	27	3	56	21	88	21	55	35	26	17	266	99
Kidney	8	3	8	0	22	8	44	15	50	26	30	16	5	7	167	75
Brain	45	14	19	6	13	7	24	11	23	20	15	7	2	3	141	68
Thyroid	10	25	2	8	6	7	5	9	1	4	2	9	0	1	26	63
Non-Hodgkin's Lymphoma	13	8	20	8	27	9	45	41	60	39	27	26	11	11	203	142
Hodgkin's Disease	26	30	8	4	5	4	4	1	3	3	0	2	0	1	46	45
Multiple Myeloma	0	0	1	2	4	6	15	8	29	16	19	22	7	6	75	60
Leukemia: Acute Lymphatic	17	11	2	0	0	0	3	1	2	1	1	3	0	2	25	18
Chronic Lymphatic	0	0	1	1	4	3	19	11	15	11	17	10	4	11	60	47
Acute Granulocytic	7	4	2	5	2	3	8	3	6	8	10	4	3	1	38	28
Chronic Granulocytic	5	2	1	1	2	2	3	3	11	1	4	4	1	2	27	15
Other & Unspecified	5	1	2	3	5	4	7	0	11	5	11	6	1	8	42	27
Other Primary Sites	17	8	6	7	17	6	18	12	27	9	16	12	4	11	105	65
Unknown & Ill-Defined Sites	1	1	5	10	19	16	46	37	65	53	43	53	17	21	196	191
TOTAL	327	333	339	479	728	785	1690	1560	2470	1793	1725	1290	485	565	7764	6805

B.C. CANCER STATISTICS 1984

INCIDENCE RATES (PER 100,000) BY SEX AND AGE GROUP, 1984

	0 - 34		35 - 44		45 - 54		55 - 64		65 - 74		75 - 84		85 - UP		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Lip	0.3	0.0	0.0	0.0	5.4	0.7	10.6	1.4	16.2	3.6	35.9	1.8	11.1	0.0	3.9	0.6
Tongue	0.3	0.1	2.0	1.5	6.1	4.3	8.3	2.8	7.6	3.6	12.0	8.9	0.0	15.1	2.7	1.8
Mouth	0.1	0.1	2.0	0.5	11.4	3.6	15.9	3.5	11.9	12.7	14.4	17.9	11.1	10.1	4.3	2.6
Pharynx	0.5	0.0	1.5	0.0	6.1	3.6	19.7	9.1	17.3	9.9	28.7	3.6	33.3	0.0	5.1	2.1
Esophagus	0.1	0.0	0.5	0.0	5.4	2.1	17.4	3.5	26.0	12.7	43.1	10.7	33.3	25.1	5.5	2.3
Stomach	0.3	0.0	0.5	1.5	10.8	2.9	29.5	8.4	86.6	32.5	122.0	55.5	122.2	80.4	14.0	7.1
Small Intestine	0.0	0.0	0.0	0.5	3.4	0.0	5.3	2.8	6.5	1.8	0.0	3.6	0.0	10.1	1.3	0.8
Colon	0.4	0.9	9.4	7.1	20.2	23.5	64.3	65.9	158.0	138.3	313.4	245.1	333.3	356.8	31.1	35.2
Rectum	0.3	0.0	3.0	3.1	22.2	20.0	57.5	51.2	122.3	64.2	165.1	85.9	177.8	105.5	22.1	17.1
Liver	0.1	0.0	1.0	1.5	3.4	1.4	9.1	4.9	13.0	6.3	23.9	14.3	55.6	10.1	3.3	2.0
Gallbladder	0.1	0.0	0.0	0.0	0.7	2.1	5.3	4.9	9.7	9.9	19.1	26.8	33.3	35.2	2.0	3.0
Pancreas	0.0	0.0	1.5	1.0	8.1	3.6	28.0	12.6	51.9	37.1	83.7	53.7	100.0	120.6	10.1	8.3
Larynx	0.0	0.0	3.0	1.0	10.1	1.4	21.9	5.6	19.5	5.4	35.9	5.4	66.7	0.0	6.2	1.5
Trachea, Bronchus, Lung	0.6	0.3	9.4	8.2	65.3	42.1	207.3	127.5	448.1	156.4	607.7	182.5	533.3	115.6	77.9	38.5
Bone, Connective Tissue	1.1	1.4	2.0	1.0	2.0	2.1	3.8	7.7	10.8	6.3	21.5	7.2	11.1	5.0	2.9	2.7
Melanoma-Skin	3.9	5.5	11.4	15.3	13.5	14.3	25.0	27.3	23.8	17.2	23.9	14.3	22.2	0.0	9.9	11.0
Other Skin	8.3	9.6	68.2	67.8	174.4	148.3	392.6	255.1	750.0	431.3	1086.1	608.2	1611.1	864.3	159.5	122.4
Breast	0.0	4.5	0.5	71.4	0.7	143.3	1.5	239.7	2.2	312.8	7.2	406.1	11.1	407.0	0.7	94.9
Cervix	0.0	3.6	0.0	12.2	0.0	13.5	0.0	11.9	0.0	9.9	0.0	19.7	0.0	20.1	0.0	7.9
Uterus	0.0	0.3	0.0	10.7	0.0	35.6	0.0	65.9	0.0	92.2	0.0	55.5	0.0	50.3	0.0	21.4
Ovary	0.0	2.1	0.0	11.2	0.0	32.8	0.0	58.2	0.0	57.0	0.0	78.7	0.0	65.3	0.0	19.9
Other Female Genital Organs	0.0	0.4	0.0	0.5	0.0	2.9	0.0	2.1	0.0	3.6	0.0	28.6	0.0	30.2	0.0	2.6
Prostate	0.0	0.0	0.5	0.0	11.4	0.0	128.6	0.0	467.5	0.0	885.2	0.0	1322.2	0.0	77.8	0.0
Testis	4.8	0.0	8.9	0.0	6.7	0.0	2.3	0.0	1.1	0.0	0.0	0.0	0.0	0.0	4.9	0.0
Bladder	0.6	0.3	4.4	0.0	18.2	2.1	42.4	14.7	95.2	19.0	131.6	62.6	288.9	85.4	18.7	6.8
Kidney	1.0	0.4	4.0	0.0	14.8	5.7	33.3	10.5	54.1	23.5	71.8	28.6	55.6	35.2	11.7	5.2
Brain	5.6	1.8	9.4	3.1	8.8	5.0	18.2	7.7	24.9	18.1	35.9	12.5	22.2	15.1	9.9	4.7
Thyroid	1.3	3.2	1.0	4.1	4.0	5.0	3.8	6.3	1.1	3.6	4.8	16.1	0.0	5.0	1.8	4.4
Non-Hodgkin's Lymphoma	1.6	1.0	9.9	4.1	18.2	6.4	34.0	28.7	64.9	35.3	64.6	46.5	122.2	55.3	14.2	9.8
Hodgkin's Disease	3.3	3.8	4.0	2.0	3.4	2.9	3.0	0.7	3.2	2.7	0.0	3.6	0.0	5.0	3.2	3.1
Multiple Myeloma	0.0	0.0	0.5	1.0	2.7	4.3	11.3	5.6	31.4	14.5	45.5	39.4	77.8	30.2	5.3	4.2
Leukemia: Acute Lymphatic	2.1	1.4	1.0	0.0	0.0	0.0	2.3	0.7	2.2	0.9	2.4	5.4	0.0	10.1	1.8	1.2
Chronic Lymphatic	0.0	0.0	0.5	0.5	2.7	2.1	14.4	7.7	16.2	9.9	40.7	17.9	44.4	55.3	4.2	3.3
Acute Granulocytic	0.9	0.5	1.0	2.5	1.3	2.1	6.1	2.1	6.5	7.2	23.9	7.2	33.3	5.0	2.7	1.9
Chronic Granulocytic	0.6	0.3	0.5	0.5	1.3	1.4	2.3	2.1	11.9	0.9	9.6	7.2	11.1	10.1	1.9	1.0
Other & Unspecified	0.6	0.1	1.0	1.5	3.4	2.9	5.3	0.0	11.9	4.5	26.3	10.7	11.1	40.2	2.9	1.9
Other Primary Sites	2.1	1.0	3.0	3.6	11.4	4.3	13.6	8.4	29.2	8.1	38.3	21.5	44.4	55.3	7.4	4.5
Unknown & Ill-Defined Sites	0.1	0.1	2.5	5.1	12.8	11.4	34.8	25.9	70.3	47.9	102.9	94.8	188.9	105.5	13.8	13.2
TOTAL	40.9	42.7	167.5	244.1	490.2	559.5	1278.4	1093.2	2673.2	1621.2	4126.8	2307.7	5388.9	2839.2	544.7	470.8

CANCER DEATHS
BY SEX AND AGE GROUP, 1984

	0 - 34		35 - 44		45 - 54		55 - 64		65 - 74		75 - 84		85 - UP		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Lip	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1
Tongue	0	0	1	0	3	2	6	2	6	2	5	1	0	3	21	10
Mouth	0	0	0	0	2	1	7	2	1	2	3	2	0	0	13	7
Pharynx	0	0	1	1	6	2	11	4	13	4	4	2	1	0	36	13
Esophagus	0	0	0	0	9	4	26	7	29	13	19	7	3	7	86	38
Stomach	0	1	4	1	11	4	21	8	43	24	56	22	9	14	144	74
Small Intestine	1	0	0	0	1	0	3	1	2	1	0	1	0	2	7	5
Colon	1	1	7	2	7	14	57	43	76	61	76	65	28	39	252	225
Rectum	0	0	2	1	5	2	11	17	22	18	28	18	11	13	79	69
Liver	0	0	2	1	4	2	13	5	11	5	11	6	4	3	45	22
Gallbladder	0	0	1	1	4	4	5	5	6	10	4	17	5	6	25	43
Pancreas	0	0	3	2	10	6	31	29	55	49	38	39	7	27	144	152
Larynx	0	0	0	0	5	0	9	1	10	2	8	0	2	0	34	3
Trachea, Bronchus, Lung	1	3	20	7	78	34	227	114	351	131	227	76	53	25	957	390
Bone, Connective Tissue	6	4	1	1	2	0	2	6	5	3	7	3	3	5	26	22
Melanoma-Skin	3	2	2	3	4	3	6	9	7	10	3	8	1	1	26	36
Other Skin	0	0	1	0	1	0	2	0	3	0	6	2	2	3	15	5
Breast	0	9	0	24	1	45	1	123	0	123	0	70	0	45	2	439
Cervix	0	2	0	7	0	7	0	6	0	7	0	6	0	3	0	38
Uterus	0	0	0	0	0	1	0	11	0	26	0	17	0	3	0	58
Ovary	0	0	0	3	0	17	0	42	0	55	0	32	0	15	0	164
Other Female Genital Organs	0	0	0	1	0	1	0	0	0	4	0	3	0	3	0	12
Prostate	0	0	0	0	3	0	33	0	85	0	130	0	70	0	321	0
Testis	3	0	0	0	0	0	1	0	1	0	0	0	0	0	5	0
Bladder	0	0	2	0	2	1	11	5	13	7	35	9	17	11	80	33
Kidney	1	0	4	3	7	4	18	8	23	14	19	7	5	4	77	40
Brain	10	5	4	3	11	6	30	13	23	16	15	6	2	3	95	52
Thyroid	0	0	1	0	2	1	1	2	2	1	2	6	0	2	8	12
Non-Hodgkin's Lymphoma	2	1	1	1	6	7	23	17	21	28	24	19	8	3	85	76
Hodgkin's Disease	2	1	1	1	2	0	1	0	1	0	0	1	0	0	7	3
Multiple Myeloma	0	0	1	0	3	4	9	5	17	13	10	19	5	5	45	46
Leukemia: Acute Lymphatic	4	6	1	1	2	0	4	3	1	1	3	3	1	0	16	14
Chronic Lymphatic	0	0	0	0	0	1	6	1	6	3	8	4	2	6	22	15
Acute Granulocytic	4	2	0	4	2	4	10	4	5	7	5	7	2	3	28	31
Chronic Granulocytic	2	1	2	1	3	0	2	3	3	1	3	2	0	1	15	9
Other & Unspecified	9	2	4	3	3	2	9	2	14	4	15	9	3	8	57	30
Other Primary Sites	2	0	6	2	9	13	21	21	16	20	26	24	3	20	83	100
Unknown & Ill-Defined Sites	1	2	3	2	8	10	19	24	40	37	29	45	9	16	109	136
TOTAL	52	42	75	76	216	202	636	543	912	703	819	558	256	299	2966	2423

B.C. CANCER STATISTICS 1984

MORTALITY RATES (PER 100,000) BY SEX AND AGE GROUP, 1984

	0 - 34		35 - 44		45 - 54		55 - 64		65 - 74		75 - 84		85 - UP		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.9	0.0	0.0	0.0	0.0	0.1	0.1
Tongue	0.0	0.0	0.5	0.0	2.0	1.4	4.5	1.4	6.5	1.8	12.0	1.8	0.0	15.1	1.5	0.7
Mouth	0.0	0.0	0.0	0.0	1.3	0.7	5.3	1.4	1.1	1.8	7.2	3.6	0.0	0.0	0.9	0.5
Pharynx	0.0	0.0	0.5	0.5	4.0	1.4	8.3	2.8	14.1	3.6	9.6	3.6	11.1	0.0	2.5	0.9
Esophagus	0.0	0.0	0.0	0.0	6.1	2.9	19.7	4.9	31.4	11.8	45.5	12.5	33.3	35.2	6.0	2.6
Stomach	0.0	0.1	2.0	0.5	7.4	2.9	15.9	5.6	46.5	21.7	134.0	39.4	100.0	70.4	10.1	5.1
Small Intestine	0.1	0.0	0.0	0.0	0.7	0.0	2.3	0.7	2.2	0.9	0.0	1.8	0.0	10.1	0.5	0.3
Colon	0.1	0.1	3.5	1.0	4.7	10.0	43.1	30.1	82.3	55.2	181.8	116.3	311.1	196.0	17.7	15.6
Rectum	0.0	0.0	1.0	0.5	3.4	1.4	8.3	11.9	23.8	16.3	67.0	32.2	122.2	65.3	5.5	4.8
Liver	0.0	0.0	1.0	0.5	2.7	1.4	9.8	3.5	11.9	4.5	26.3	10.7	44.4	15.1	3.2	1.5
Gallbladder	0.0	0.0	0.5	0.5	2.7	2.9	3.8	3.5	6.5	9.0	9.6	30.4	55.6	30.2	1.8	3.0
Pancreas	0.0	0.0	1.5	1.0	6.7	4.3	23.4	20.3	59.5	44.3	90.9	69.8	77.8	135.7	10.1	10.5
Larynx	0.0	0.0	0.0	0.0	3.4	0.0	6.8	0.7	10.8	1.8	19.1	0.0	22.2	0.0	2.4	0.2
Trachea, Bronchus, Lung	0.1	0.4	9.9	3.6	52.5	24.2	171.7	79.9	379.9	118.4	543.1	136.0	588.9	125.6	67.1	27.0
Bone, Connective Tissue	0.8	0.5	0.5	0.5	1.3	0.0	1.5	4.2	5.4	2.7	16.7	5.4	33.3	25.1	1.8	1.5
Melanoma-Skin	0.4	0.3	1.0	1.5	2.7	2.1	4.5	6.3	7.6	9.0	7.2	14.3	11.1	5.0	1.8	2.5
Other Skin	0.0	0.0	0.5	0.0	0.7	0.0	1.5	0.0	3.2	0.0	14.4	3.6	22.2	15.1	1.1	0.3
Breast	0.0	1.2	0.0	12.2	0.7	32.1	0.8	86.2	0.0	111.2	0.0	125.2	0.0	226.1	0.1	30.4
Cervix	0.0	0.3	0.0	3.6	0.0	5.0	0.0	4.2	0.0	6.3	0.0	10.7	0.0	15.1	0.0	2.6
Uterus	0.0	0.0	0.0	0.0	0.0	0.7	0.0	7.7	0.0	23.5	0.0	30.4	0.0	15.1	0.0	4.0
Ovary	0.0	0.0	0.0	1.5	0.0	12.1	0.0	29.4	0.0	49.7	0.0	57.2	0.0	75.4	0.0	11.3
Other Female Genital Organs	0.0	0.0	0.0	0.5	0.0	0.7	0.0	0.0	0.0	3.6	0.0	5.4	0.0	15.1	0.0	0.8
Prostate	0.0	0.0	0.0	0.0	2.0	0.0	25.0	0.0	92.0	0.0	311.0	0.0	777.8	0.0	22.5	0.0
Testis	0.4	0.0	0.0	0.0	0.0	0.0	0.8	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Bladder	0.0	0.0	1.0	0.0	1.3	0.7	8.3	3.5	14.1	6.3	83.7	16.1	188.9	55.3	5.6	2.3
Kidney	0.1	0.0	2.0	1.5	4.7	2.9	13.6	5.6	24.9	12.7	45.5	12.5	55.6	20.1	5.4	2.8
Brain	1.3	0.6	2.0	1.5	7.4	4.3	22.7	9.1	24.9	14.5	35.9	10.7	22.2	15.1	6.7	3.6
Thyroid	0.0	0.0	0.5	0.0	1.3	0.7	0.8	1.4	2.2	0.9	4.8	10.7	0.0	10.1	0.6	0.8
Non-Hodgkin's Lymphoma	0.3	0.1	0.5	0.5	4.0	5.0	17.4	11.9	22.7	25.3	57.4	34.0	88.9	15.1	6.0	5.3
Hodgkin's Disease	0.3	0.1	0.5	0.5	1.3	0.0	0.8	0.0	1.1	0.0	0.0	1.8	0.0	0.0	0.5	0.2
Multiple Myeloma	0.0	0.0	0.5	0.0	2.0	2.9	6.8	3.5	18.4	11.8	23.9	34.0	55.6	25.1	3.2	3.2
Leukemia: Acute Lymphatic	0.5	0.8	0.5	0.5	1.3	0.0	3.0	2.1	1.1	0.9	7.2	5.4	11.1	0.0	1.1	1.0
Chronic Lymphatic	0.0	0.0	0.0	0.0	0.0	0.7	4.5	0.7	6.5	2.7	19.1	7.2	22.2	30.2	1.5	1.0
Acute Granulocytic	0.5	0.3	0.0	2.0	1.3	2.9	7.6	2.8	5.4	6.3	12.0	12.5	22.2	15.1	2.0	2.1
Chronic Granulocytic	0.3	0.1	1.0	0.5	2.0	0.0	1.5	2.1	3.2	0.9	7.2	3.6	0.0	5.0	1.1	0.6
Other & Unspecified	1.1	0.3	2.0	1.5	2.0	1.4	6.8	1.4	15.2	3.6	35.9	16.1	33.3	40.2	4.0	2.1
Other Primary Sites	0.3	0.0	3.0	1.0	6.1	9.3	15.9	14.7	17.3	18.1	62.2	42.9	33.3	100.5	5.8	6.9
Unknown & Ill-Defined Sites	0.1	0.3	1.5	1.0	5.4	7.1	14.4	16.8	43.3	33.5	69.4	80.5	100.0	80.4	7.6	9.4
TOTAL	6.5	5.4	37.1	38.7	145.5	144.0	481.1	380.5	987.0	635.6	1959.3	998.2	2844.4	1502.5	208.1	167.6

B.C. Cancer Statistics 1984

Age Standardized Incidence Rates* By Site And Sex 1981 - 1984

(per 100,000 population)

Site	Male				Female			
	1981	1982	1983	1984	1981	1982	1983	1984
Lip	2.1	2.5	2.9	3.0	0.3	0.4	0.5	0.4
Tongue	1.4	2.0	2.0	2.2	0.9	1.1	1.1	1.4
Mouth	2.7	2.4	2.7	2.4	1.4	1.7	1.9	1.3
Pharynx	2.6	3.3	4.0	4.1	1.0	1.8	1.1	1.7
Esophagus	4.6	4.1	4.7	4.2	2.0	2.0	1.7	1.7
Stomach	13.4	11.2	11.7	10.8	6.0	6.3	5.7	5.0
Small Intestine	1.0	0.6	0.5	1.0	0.7	0.5	0.6	0.5
Colon	23.0	22.2	23.6	23.9	25.5	21.8	23.2	25.8
Rectum	17.1	17.2	14.5	17.3	10.5	11.8	12.9	13.1
Liver	2.9	2.7	2.9	2.6	1.7	1.6	1.6	1.5
Gallbladder	1.2	2.1	1.8	1.6	2.7	2.3	2.7	2.2
Pancreas	9.1	9.1	9.3	7.8	6.8	6.5	7.3	5.9
Larynx	4.8	5.1	5.6	5.1	0.9	0.3	1.0	1.2
Trachea, Bronchus, Lung	59.1	54.3	57.1	60.1	25.4	22.8	27.6	30.1
Bone, Connective Tissue	3.2	2.6	3.2	2.5	2.3	1.5	1.9	2.4
Melanoma – Skin	6.7	7.1	9.1	8.1	10.1	8.1	10.6	9.4
Other Skin	112.1	98.0	118.9	126.3	90.9	76.8	96.7	95.2
Breast	0.3	0.8	0.5	0.5	72.9	70.7	77.6	76.3
Cervix	0.0	0.0	0.0	0.0	9.0	8.3	7.7	6.6
Uterus	0.0	0.0	0.0	0.0	16.4	15.8	15.8	17.3
Ovary	0.0	0.0	0.0	0.0	10.7	12.4	11.9	16.6
Other Female Genital Organs	0.0	0.0	0.0	0.0	2.1	1.1	2.1	2.0
Prostate	52.7	53.6	55.4	57.4	0.0	0.0	0.0	0.0
Testis	2.7	2.8	4.2	4.2	0.0	0.0	0.0	0.0
Bladder	18.1	16.0	16.1	14.6	5.8	5.4	5.2	4.9
Kidney	7.6	6.7	7.8	9.5	4.0	2.8	3.9	4.0
Brain	5.4	5.7	5.4	8.9	5.1	3.6	3.8	4.0
Thyroid	1.2	1.5	1.8	1.7	3.6	2.7	3.3	3.6
Non-Hodgkin's Lymphoma	7.9	8.7	10.7	11.7	5.5	8.5	9.8	7.6
Hodgkin's Disease	2.6	2.7	2.5	3.2	1.2	1.9	1.8	2.9
Multiple Myeloma	3.3	2.5	3.2	4.0	2.8	2.2	2.6	3.1
Leukemia: Acute Lymphatic	0.7	1.1	1.5	1.8	0.5	0.7	1.3	1.3
Chronic Lymphatic	2.8	1.5	2.6	3.2	0.9	1.4	1.3	2.3
Acute Granulocytic	0.9	1.0	1.0	2.2	1.1	1.7	1.3	1.6
Chronic Granulocytic	1.2	0.7	0.8	1.4	0.8	0.6	1.0	0.8
Other & Unspecified	2.4	2.8	2.5	2.4	1.7	1.6	1.6	1.4
Other Primary Sites	6.5	5.3	4.9	7.5	3.2	2.9	3.6	4.4
Unknown & Ill-Defined Sites	22.9	29.3	13.9	10.8	19.3	24.9	11.8	9.9
TOTAL	406.2	389.2	409.3	428.3	355.7	336.5	365.5	369.9

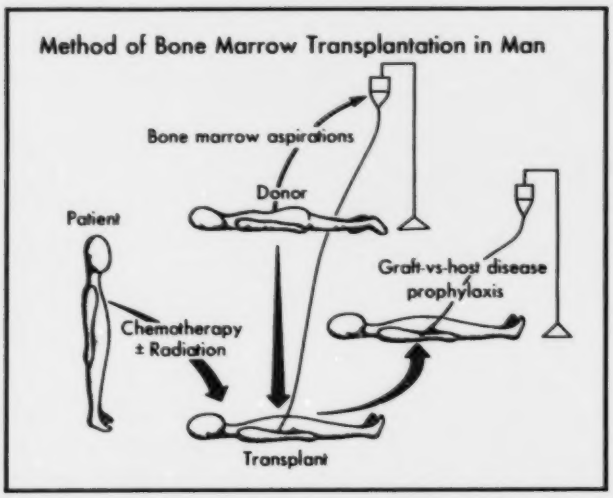
* Rates are standardized to the 1971 Canadian population.

BC. CANCER
STATISTICS 1984

AGE STANDARDIZED MORTALITY RATES BY SITE AND SEX. 1981 - 1984

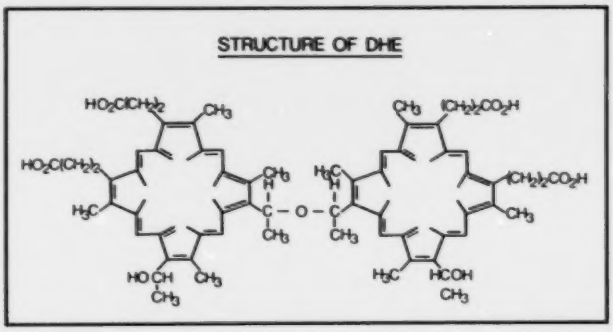
(per 100,000 population)

	Male				Female			
Site	1981	1982	1983	1984	1981	1982	1983	1984
Lip	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1
Tongue	0.7	1.1	1.0	1.2	0.2	0.6	0.4	0.5
Mouth	0.7	1.2	1.3	0.5	0.7	0.5	0.6	0.3
Pharynx	1.3	0.8	1.8	2.1	0.7	0.5	0.4	0.7
Esophagus	4.5	3.7	4.2	4.7	1.3	1.8	2.0	2.0
Stomach	9.5	8.1	8.6	7.7	4.5	4.2	4.5	3.7
Small Intestine	0.2	0.8	0.1	0.4	0.2	0.3	0.4	0.2
Colon	11.8	11.3	11.4	13.6	12.9	10.5	11.4	11.2
Rectum	4.4	4.9	5.7	4.3	3.7	1.9	2.9	3.5
Liver	2.3	2.7	2.8	2.5	1.7	1.5	1.7	1.2
Gallbladder	0.6	1.5	1.2	1.4	1.9	1.8	1.5	2.2
Pancreas	7.4	9.2	9.2	7.7	6.2	5.9	6.9	7.6
Larynx	1.3	1.9	1.8	1.9	0.3	0.2	0.5	0.2
Trachea, Bronchus, Lung	44.2	47.7	45.7	51.6	17.9	18.3	21.2	20.6
Bone, Connective Tissue	1.2	1.2	1.2	1.5	0.7	1.3	0.9	1.2
Melanoma – Skin	1.8	2.1	1.8	1.5	1.3	1.8	1.3	1.9
Other Skin	0.0	1.0	0.8	0.8	0.0	0.7	0.6	0.2
Breast	0.2	0.2	0.0	0.0	24.6	24.8	24.2	23.4
Cervix	0.0	0.0	0.0	0.0	2.5	3.5	2.2	2.1
Uterus	0.0	0.0	0.0	0.0	3.2	3.0	2.8	2.9
Ovary	0.0	0.0	0.0	0.0	6.6	8.6	7.2	8.7
Other Female Genital Organs	0.0	0.0	0.0	0.0	0.6	0.6	0.2	0.6
Prostate	14.5	15.9	14.9	16.7	0.0	0.0	0.0	0.0
Testis	0.4	0.2	0.2	0.3	0.0	0.0	0.0	0.0
Bladder	4.0	4.9	4.7	4.3	1.6	1.3	0.9	1.6
Kidney	3.5	3.4	3.5	4.3	2.0	1.7	1.8	2.1
Brain	4.3	5.2	4.1	5.6	3.5	3.2	3.1	2.9
Thyroid	0.1	0.5	0.3	0.5	0.3	0.6	0.8	0.6
Non-Hodgkin's Lymphoma	4.4	4.4	5.7	4.7	2.8	3.4	4.6	4.0
Hodgkin's Disease	0.5	0.8	0.4	0.4	0.4	0.5	0.3	0.2
Multiple Myeloma	2.4	2.8	1.9	2.4	2.4	1.5	2.1	2.4
Leukemia: Acute Lymphatic	0.6	0.8	0.7	1.0	0.5	0.6	0.1	0.7
Chronic Lymphatic	1.6	1.3	1.3	1.2	0.5	0.6	0.8	0.9
Acute Granulocytic	1.1	1.2	0.9	1.5	0.9	1.7	1.0	1.5
Chronic Granulocytic	1.2	0.6	0.5	0.9	0.4	0.5	1.0	0.8
Other & Unspecified	2.3	2.5	2.7	3.3	1.4	1.2	1.2	1.6
Other Primary Sites	3.1	4.0	5.0	4.9	3.3	4.0	4.1	5.3
Unknown & Ill-Defined Sites	4.3	5.4	5.0	5.9	4.5	4.4	5.6	6.9
TOTAL	140.5	152.0	151.5	161.1	116.2	116.9	120.4	126.6

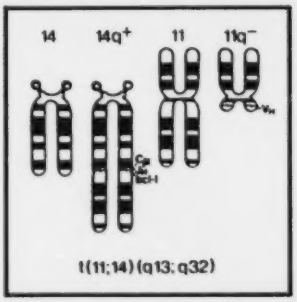


Bone marrow is the source of man's various blood cells. Intrinsic diseases of the marrow may result in disorders of these blood cells (e.g. leukemia, lymphoma, aplastic anemia and severe congenital immunodeficiencies). Bone marrow transplantation is a technique whereby a healthy donor, usually a sibling or close relative, has bone marrow collected from their pelvis under general anesthesia. This bone marrow is then given intravenously to the patient (often incurable with other more conventional forms of therapy). This is given after the patient has received intensive chemotherapy and radiotherapy intended to cure their malignancy. In certain situations a patient's own bone marrow, collected while in remission, may be used to help restore normal blood count after intensive therapy for malignancy. This form of bone marrow transplantation is called 'autologous'.

Within two to three weeks after transplantation the 'new' bone marrow begins to produce normal blood cells. Patients can be discharged from hospital if they do not have the complication known as graft versus host disease which predisposes them to infections, especially those due to viruses or fungi.



In the diagnosis and treatment of lung cancer, the photosensitizing drug DHE (Dihematoporphyrin Ether) is first injected intravenously. For diagnosis, a violet light from a Krypton Ion laser is shone on the surface of the cancer. The cancer will produce a red fluorescence. For treatment, an Argon-dye lazer is used instead. Upon excitation by the red laser, the DHE in the cancer cells generates oxygen radicals to kill the cancer cells by a photodynamic reaction. Dr. Stephen Lam, a respirologist on our consulting staff, introduced this procedure to the Agency.



In a Cytogenetic Laboratory chromosomes, the small dark bodies seen in dividing cells, are studied. Chromosomes are the carriers of genetic material and are usually rearranged, lost or duplicated in cancer cells. The staff of the Cytogenetic Laboratory under the direction of Dr. Dagmar Kalousek use variable culture techniques to make cancer cells divide and show their chromosomal defects. The observed chromosomal abnormalities in cancer cells are used as a diagnostic and prognostic tool by the oncologists. For example, the diagram of chromosomal rearrangement shown above is diagnostic for B cell malignancies as it involves an immunoglobulin gene cluster localized on chromosome 14. The presence of chromosomal rearrangement in B cell leukemias puts the patient into a poor response category to a standard treatment.